

REMARKS

Claims 1, 6, 9, 12, 16, 19, 23-26, 34, 35, 37, 40, 41, 44-46, 50 and 52 are amended. Claims 1, 2, 6-12, 16, 17 and 19-52 are currently pending in the application. Reconsideration of the application, as amended, is respectfully requested.

I. Independent Claims 1, 9, 12, 19, 23, 35, 46 And 52 Are Patentable Over Zhang In View of Robertson

Independent claims 1, 9, 12, 19, 23, 35, 46 and 52 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,687,748 to Zhang *et al.* (“Zhang”) in view of U.S. Patent No. 6,594,799 to Robertson *et al.* (“Robertson”). Under 35 U.S.C. §103(a), to establish a *prima facie* case of obviousness of a claim, all of the claim limitations must be taught or suggested, and all words in a claim must be considered in judging the patentability of that claim. MPEP §§2143; 2143.03, citing *In re Royka*, 490 F.2d 981 (CCPA 1974). There must also be some suggestion or motivation to combine the references. MPEP §§2143.01-2143.03, citing *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). The mere fact that a reference can be modified does not render the resultant modification obvious unless the reference also suggests the desirability of the modification. MPEP § 2143.01, citing *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Further, if a proposed modification would render the prior art being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP §2143.01 (*In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)).

Applicants respectfully traverse the rejection since the references, individually or in combination, fail to disclose or suggest each limitation of the independent claims. Accordingly, assuming *arguendo* the combination were made, the asserted combination would nevertheless fail to satisfy the requirement that each claim limitation be disclosed. Moreover, there is no suggestion or motivation to combine the references, and the asserted combination and modification would render Robertson unsatisfactory for its intended purpose.

A. Zhang Fails to Disclose or Suggest, and is Not Related to, Simulation Engines for Electronic Design Simulations

Page 2 of the Office action equates “simulation engine” as recited in the claims with “simulation device” as disclosed in Zhang on the basis that claims are interpreted as broadly as their terms reasonably allow. The broadest reasonable interpretation, however, is the meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art. MPEP §2111, citing *Sunrace Roots Enter. Co., Ltd. v. SRAM Corp.*, 336 F.3d 1298, 1302 (Fed. Cir. 2003). Thus, although the PTO must give claims their broadest reasonable interpretation, this interpretation must be consistent with the one that those skilled in the art would reach. *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999), citing *In re Morris*, 127 F.3d at 1054.

For clarification, and to eliminate Zhang from any further consideration, independent claims 1, 9, 12, 19, 23, 35, 46 and 52 are each amended to recite that the simulation engines are used in electronic design simulations. Zhang fails to disclose or suggest and, is not related to, methods, systems and computer programs and simulation engines for facilitating collaborative electronic design simulations. In contrast, Zhang relates to simulating network devices to generate “alarm signals” and “polling requests.” (Zhang, col. 2, lines 15-20). Alarm information is disclosed as temperature alarms, power failure alarms and interface alarms. (Zhang, col. 5, lines 5-11; col. 7, lines 40-47). The purpose of the system described in Zhang is to alleviate the burdens of maintaining many actual network devices and simulate network devices to test for scalability, performance and reliability of the network management server. (Zhang, Abstract; col. 6, lines 30-39; col. 7, lines 44-55).

The substantial differences between a “simulation engine” used for electronic design simulations and a “simulation device” for testing alarms and polling are well understood by persons skilled in the art. Accordingly, Zhang is no longer relevant to Applicant’s claims since a simulation device is not a simulation engine used for electronic design.

B. Zhang Fails to Disclose or Suggest A Portal Accessible By Simulation Engines Coupled To a Network

Zhang also fails to disclose or suggest “creating said simulation portal openly accessible to said first and second simulation engines connected to said computer network” as recited in

claim 1 and the related “portal” and “network” recitations of claims 9, 12, 19, 23, 46 and 52. Thus, claims of the subject application call for a “portal” in addition to a network.

The Office action refers to column 11, lines 27-28 of Zhang. This section, however, only discloses a network, and does not disclose or otherwise suggest portal or a separate portal in addition to the network.

Moreover, Zhang does not disclose or suggest why or how a portal as recited in Applicant’s claims would be integrated within the system described by Zhang, particularly considering that the specific functions of the simulation devices described by Zhang, i.e., simulating alarms and polling and testing scalability, performance and reliability of a server.

C. Zhang Does Not Disclose or Suggest Receiving a Simulation

Output File At a Simulation Portal From a First Simulation Engine

Further, whatever the “portal” might be in Zhang, Zhang nevertheless fails to disclose “receiving an electronic design simulation output file at said simulation portal from said first simulation engine” as recited in claim 1, “means for receiving at said stimulation portal one or more electronic design simulation output files from said first simulation engine” as recited in claim 9, “instructions for receiving an electronic design simulation output file uploaded from at least said first simulation engine” as recited in claim 12, “receiving an electronic design simulation output file associated with a first portion of the circuit design from a first of said plurality of simulation engines” as recited in claim 35.

The Office action refers to col. 5, lines 54-56, but this section only discloses a communication device 36, which does not output electronic design simulation output files. Instead, the communication device 36 generates or outputs alarm signals, which are not electronic design simulations output files, and which are not related to electronic design simulation. (Zhang, col. 4, lines 59-60).

D. Zhang and Robertson Fail to Disclose or Suggest Communications Between Simulation Engines Via a Portal

Moreover, whatever the “portal” might be in Zhang, Zhang fails to disclose or suggest “providing said electronic design simulation output file from said simulation portal upon request to said second simulation engine” as recited in claim 1, “means for providing said one or more

electronic design simulation output files from said simulation portal upon request to said second simulation engine” as recited in claim 9, “instructions for providing said electronic design simulation output file to at least said second simulation engine upon request: as recited in claim 12, “providing at least one of said electronic design simulation output files from said simulation portal to at least one other of said design teams connected to said simulation portal” as recited in claim 19, “sending the electronic design simulation output file to each of said plurality of simulation engines upon request, at least a second of said plurality of simulation engines performing an electronic design simulation for a second portion of the circuit design using the output file as input” as recited in claim 35, “the plurality of simulation engines able to send electronic design simulation output files to the portal and able to receive any of the electronic design simulation output files from the portal” as recited in claim 46, “the web-enabled simulation engines being in communication with each other so that an electronic design simulation output file generated by a first simulation engine can be sent as an input file to a second simulation engine” as recited in claim 52.

Zhang also fails to disclose or suggest a first simulation engine that generates an simulation output file that is received at the simulation portal and, in addition, providing the simulation output file to a second simulation engine. Rather, at best, Zhang discloses inputs and outputs relative to the a single or the same network device. Zhang does not disclose or suggest why an output of one simulation device would be provided as an input to another simulation device, particularly considering the purpose of the communication device 36 described by Zhang.

Also, Zhang is silent as to “design teams” and the communications involving design teams as recited in claim 19 . The sections of Zhang cited in the Office action do not relate to design teams.

Robertson explains that a portal site acts as a server that can be accessed by users. (Robertson, col. 5, lines 1-2). The purpose of the portal is to provide users access to tools and servers “in a single locale.” (Robertson, col. 5, lines 16-17). Robertson, therefore, also does not disclose or suggest a first simulation engine that generates an simulation output file that is received at the simulation portal and providing the simulation output portal to a second simulation engine.

E. Zhang Fails to Disclose or Suggest Comparing Electronic Simulation Output Files

Zhang also fails to disclose or suggest “selecting the optimal components for said system design based on a comparison of said electronic design simulation output files” as recited in claim 19. The Office action refers to col. 5, lines 54-56, but the cited section of Zhang is silent as to multiple electronic design simulation output files and is silent as to comparing such files to select optimal components.

F. Zhang and Robertson Fail to Disclose or Suggest Managing and Synchronizing Communications Between Simulation Engines

Zhang and Robertson also fail to disclose or suggest “a simulation controller, managing and synchronizing communications between the participating simulation engines” as recited in claim 23. As discussed above, neither reference discloses nor suggests communication between simulation engines and, therefore, does not disclose or suggest managing and synchronizing communications between multiple simulation engines.

G. Zhang and Robertson Fail to Disclose or Suggest Dynamically Creating a Portal

Zhang fails to disclose or suggest “the portal being created dynamically” as recited in claim 23 and “dynamically creating a portal” as recited in claim 35. Whatever the “portal” might be in Zhang, Zhang nevertheless fails to disclose or suggest that it is created dynamically, particularly in the context of an electronic design simulation involving communications between simulation engines via a portal.

The, the claims of the subject application refer to dynamically creating a portal, not parts. The cited section of Robertson discloses “dynamic parts” which are electronic component data stored in a database in the form of “dynamic parts” that can be transferred into a user’s design. Thus, the word “dynamic” is used in a different context, and Robertson does not disclose or suggest dynamically creating a portal. Instead, Robertson explains that “a portal site acts as a server.” (Robertson, col. 5, lines 1-2).

H. Asserted Combination Cannot Support the Rejection Under §103(a)

In view of the above remarks, assuming *arguendo* the asserted combination of Zhang and Robertson were made, the combination would nevertheless fail to disclose each and every limitation of the claims. The rejection, therefore, cannot stand. MPEP §§2143; 2143.03, citing *In re Royka*, 490 F.2d 981 (CCPA 1974).

Further, neither Zhang nor Robertson discloses or suggests why (or how) communications between simulation engines should or could be implemented. Thus, the required suggestion or motivation to make the asserted combination and modification are lacking, and the rejection cannot stand. MPEP §2143.01. Additionally, Zhang is not at all related to electronic design simulations. Instead, Zhang relates to alarms and polling. Robertson, on the other hand, describes a single portal that acts as a server to provide users access to electronic design tools. Thus, the required suggestion or motivation to combine and/or modify the references is lacking.

Robertson also teaches away from a “dynamically” created portal since Robertson refers to a “single” portal. For example, Robertson explains “it would be advantageous to connect participants … through a single portal site that facilitates information exchange and transactions” and that users have “access to a wide variety of tools and services in a single locale.” (Robertson, col. 4, lines 48-50; col. 5, lines 16-17). Dynamically creating a portal would result in multiple portals and/or create a portal that changes or is not always available, thus negating the purpose of providing a centralized and single portal or server.

Correspondingly, the rejection of independent claims 1, 9, 12, 19, 23, 35, 46 and 52, under §103(a) cannot stand.

II. Claims 2, 6, 7, 10, 11, 16, 17, 20, 21, 24-34, 36-45 and 47-51 Are Patentable Over Zhang and Robertson

Dependent claims 2, 6, 7, 10, 11, 16, 17, 20, 21, 24-34, 36-45 and 47-51 are rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang and Robertson. Applicants respectfully submit that these claims, which add novel and non-obvious limitations to their respective independent claims, are also patentable for the reasons set forth above.

For example, the cited references are clearly deficient relative to an output simulation file from one simulation engine being an input simulation file to another simulation engine and do not disclose or suggest dependent claims reciting limitations relating to synchronizing communications between simulation engines and matching timing steps (e.g., claims 24-26, 50)

Thus, the rejection of dependent claims 2, 6, 7, 10, 11, 16, 17, 20, 21, 24-34, 36-45 and 47-51 under §103(a) cannot stand.

III. Conclusion

Applicants respectfully request that application is in condition for allowance. If there are any remaining issues that can be resolved by telephone, Applicants invite the Examiner to contact the undersigned at the number indicated below.

Respectfully submitted,

Date: March 7, 2006

By: 
Gary D. Lueck
Registration No. 50,791

BINGHAM MCCUTCHEN LLP
Three Embarcadero Center, Suite 1800
San Francisco, CA 94111
Telephone: (213) 680-6813
Facsimile: (213) 680-6499
E-mail: gary.lueck@bingham.com